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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/675,677 Filing Date: September 30, 2003 Appellant(s): GROSBACH ET AL.

> Steven M. Santisi For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/24/2008 appealing from the Office action mailed 5/14/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

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(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct,

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,272,109	Pei et al.	8-2001
US 6,560,230	Li et al.	5-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

 Claims 1-12, and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Pei (US006272109B1).

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Regarding Claim 1, Pei discloses a method (see FIG. 1A-B, 2-4, data communication system UNI 10 processing the method) comprising:

selecting a first winning entry (see FIG. 5, identify/select a first content/entry) from one of a plurality of main calendars (see FIG. 5, from lists in the schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first content/entry to be serviced identifies a first VPOC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determining that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

selecting a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars during the time unit (see FIG. 5, from lists in the schedule table during a time), the second winning entry indicating a second pipe (see FIG. 5, identify/selected a second VPC) or autonomous flow (see FIG. 5, identify/selected separate/independent/autonomous VCC associated with a first VPC) to be serviced during the time unit (see FIG. 5, a second admission/entry identifies a second VPC or separate/independent/autonomous VCC to be serviced during a time; see FIG. 1A-B, Method S5-S9,S11,S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

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servicing the autonomous flow or pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; servicing high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 2, Pei discloses selecting the first winning entry from a highest priority calendar that indicates an entry that needs to be serviced (see FIG. 1A-B, 5, S3-S4, S7, S11, S12, selecting/identifying a first admission/entry to serviced from the HP VPCs that indicates that VCC entry that requires priority serving (e.g. CBR); see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40).

Regarding Claim 3, Pei discloses the first winning entry includes a first entry of a chain (see FIG. 5, VP1, VC1 is the first entry of table/chain to be serviced), the chain includes a plurality of pipe entries (see FIG. 5, VP0-VP3) scheduled to be serviced during the time unit (see FIG. 5, Table/chain includes VP0-VP3 scheduled to be serviced during the time).

Regarding Claim 4, Pei discloses wherein selecting the first winning entry from one of the plurality of main calendars during the time unit includes selecting the first winning entry from one of the plurality of main calendars, each of which is of the different priority, during the time unit (see FIG. 5, identifying/selecting a first entry/admission to be serviced from one of low priority list or high priority list during the time); see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40.

Regarding Claim 5, Pei discloses wherein selecting the first winning entry from one of the plurality of main calendars during the time unit includes, selecting the first winning entry from one of the plurality of main calendars during a plurality of clock cycles (see FIG. 4, data

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communication system UNI 10 utilizes clocking (TCTL_CLK and RCTL_CLK) performs processing within clock boundaries, and thus it is clear that the identifying/selecting a first entry/admission to be serviced from one of the list/column in a schedule table is performed during a plurality of clock cycles of clock boundaries; col. 8, line 50-60; see col. 9, line 54-69).

Regarding Claim 6, Pei discloses wherein determining that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit includes, accessing a pipe queue corresponding with the winning first pipe for pipe flows that need to be serviced (see FIG. 3, memory 29 comprising queues storing VPC and VCC information for CBR, VBR, ABR and UBR traffic, and the scheduler lookups/access the queue associated with a identified VPC its VCC that needs to be serviced; see col. 7, line 50-57; see col. 9, line 25-30,43-50; see col. 11, line 15-22) and determining that no pipe flow corresponding to the winning first pipe entry currently needs to be serviced during the time unit (see FIG. 1A, S3,S5, S11; when there is no cell ready to send for identified/selected VPC with its VCC (e.g. CBR/VBR) during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16).

Regarding Claim 7, Pei discloses electing the second winning entry from one of the plurality of main calendars during the time unit includes selecting a second entry of the chain (see FIG. 1A-B, 5, identifying/selecting a second entry/admission to be serviced from the second entry/admission of the list/table (e.g. VP2, VC3); see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25).

Regarding Claim 8, Pei discloses selecting the second winning entry from a calendar of a lower priority than the highest priority calendar (see FIG. 1A-B, 5, identifying/selecting a

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second entry/admission to be serviced from the entries/lists of low priority than high priority; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25).

Regarding Claim 9, Pei discloses selecting the second winning entry from the highest priority calendar that has an entry indicating a pipe or autonomous flow to be serviced during the time unit (see FIG. 5, identifying/selecting a second entry/admission to be serviced from the entries/lists of high priority of a second VPC (e.g. VP3 VC2) (e.g. another CBR/VBR), or separate/independent/autonomous VCC of a first VPC (e.g. VBR); see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25).

Regarding Claim 10, Pei discloses wherein servicing the autonomous flow or pipe flow corresponding to the second winning entry during the time unit includes, accessing a pipe queue corresponding to the second winning entry to select a pipe flow that needs to be serviced (see FIG. 3, memory 29 comprising queues storing VPC and VCC information for CBR, VBR, ABR and UBR traffic, and the scheduler lookups/access the queue associated with a identified second entry/entrance to identify/select a second VCC that needs to be serviced; see col. 7, line 50-57; see col. 9, line 25-30,43-50; see col. 11, line 15-22; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 11, Pei discloses servicing the autonomous flow or pipe flow corresponding to the second winning entry during the time unit includes, servicing a highest priority pipe flow that is in the pipe queue a longest time (see FIG. 4-5, 6, when selected VCC has no cell ready to transmit, the scheduler looks to a queue of VCCs to fetch a VCC at the head of the queue (i.e. the longest time in the queue); see col. 16, line 55-63).

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Regarding Claim 12, Pei discloses a network processor system (see FIG. 2-4, data communication system UNI 10) comprising:

at least one memory (see FIG. 2, memory 29) adapted to store one or more quality of service priority parameters (see col. 9, line 35-53; storing traffic priority tables) corresponding to one or more pipes (see FIG. 5, Virtual Path Connection (VPC)) and pipe flows (see FIG. 5, Virtual Circuit Connection (VCC) flows/connections with different priorities; see col. 9, line 20-30,45-50; see col. 10, line 65-67); and

scheduler logic (see FIG. 2, ATM segmentation and Reassembly CKT 23 with scheduling means (see FIG. 4)), coupled to the at least one memory (see FIG. 2, connects to memory 29); see col. 7, line 50-56, to:

select a first winning entry (see FIG. 5, identify/select a first content/entry) from one of a plurality of main calendars (see FIG. 5, from lists in the schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first content/entry to be serviced identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determine that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

select a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars during the time unit (see FIG. 5, from lists in the

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schedule table during a time), the second winning entry indicating a second pipe (see FIG. 5, identify/selected a second VPC) or autonomous flow (see FIG. 5, identify/selected separate/independent/autonomous VCC associated with a first VPC) to be serviced during the time unit (see FIG. 5, a second admission/entry identifies a second VPC or separate/independent/autonomous VCC to be serviced during a time; see FIG. 1A-B, Method S5-S9,S11,S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

service the autonomous flow or pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; servicing high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 14, Pei discloses enqueue and new attach logic for scheduling at least one of the autonomous flow and the pipe flow to be serviced (see col. 5, line 5-30; see col. 7, line 50-57; see col. 9, line 25-30,43-65; see col. 11, line 15-22; see col. 16, line 50-62; Memory 29 comprising queues and buffers, and thus it is clear that queues/buffers perform enqueing/entering; the ATM segmentation and Reassembly CKT 23 with scheduling means/logic schedules the VCC to be served); and

dequeue and reattach logic for selecting at least one of the autonomous flow and the pipe flow to be serviced (see col. 5, line 5-30; see col. 7, line 50-57; see col. 9, line 25-30,43-65; see col. 11, line 15-22; see col. 16, line 50-62; Memory 29 comprising queues and buffers, and thus it is clear that queues/buffers performs dequeuing/exiting; the ATM segmentation and

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Reassembly CKT 23 with scheduling means/logic identifies/selects the VCC to be served from the head of the queue).

Regarding Claim 15, Pci discloses a method steps (see FIG. 1A-B, 2-4, data communication system UNI 10 processing the method steps) comprising:

selecting a first winning entry (see FIG. 5, identify/select a first content/entry) from one of a plurality of main calendars (see FIG. 5, from lists in the schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first content/entry to be service identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determining that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

selecting a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars during the time unit (see FIG. 5, from lists in the schedule table during a time), the second winning entry indicating a second pipe (see FIG. 5, identify/selected a second VPC) to be serviced during the time unit (see FIG. 5, a second admission/entry identifies a second VPC to be serviced during a time; see FIG. 1A-B, Method S5-S9, S11, S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

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servicing a pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; servicing high/low priority second VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 16, Pci discloses a method (see FIG. 1A-B, 2-4, data communication system UNI 10 processing the method) comprising:

selecting a first winning entry (see FIG. 5, identify/select a first content/entry to be serviced) from one of a plurality of main calendars (see FIG. 5, from lists in a schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first admission/content to be service identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determining that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

selecting a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars (see FIG. 5, from lists in a schedule table) during the time unit (see FIG. 5, during a time), the second winning entry indicating autonomous flow (see FIG. 5, identify/selected separate/independent/autonomous VCC associated with a first VPC) to be serviced during the time unit (see FIG. 5, a second content/entry identifies a separate/independent/autonomous VCC to be serviced during a time; see FIG. 1A-B, Method S5-

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S9,S11,S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to a low priority separate/independent/autonomous VCC of a first VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

servicing the autonomous flow or pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; low priority separate/independent/autonomous VCC of a first VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 17, Pei discloses a network processor system (see FIG. 2-4, data communication system UNI 10) comprising:

at least one memory (see FIG. 2, memory 29) adapted to store one or more quality of service priority parameters (see col. 9, line 35-53; storing traffic priority tables) corresponding to one or more pipes (see FIG. 5, Virtual Path Connection (VPC)) and pipe flows (see FIG. 5, Virtual Circuit Connection (VCC) flows/connections with different priorities; see col. 9, line 20-30,45-50; see col. 10, line 65-67); and

Scheduler logic (see FIG. 2, ATM segmentation and Reassembly CKT 23 with scheduling means (see FIG. 4)), coupled to the at least one memory (see FIG. 2, connects to memory 29); see col. 7, line 50-56, to:

select a first winning entry (see FIG. 5, identify/select a first content/entry) from one of a plurality of main calendars (see FIG. 5, from lists in the schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first content/entry to be service

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identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determine that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

select a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars during the time unit (see FIG. 5, from lists in the schedule table during a time), the second winning entry indicating a second pipe (see FIG. 5, identify/selected a second VPC) to be serviced during the time unit (see FIG. 5, a second admission/entry identifies a second VPC to be serviced during a time; see FIG. 1A-B, Method S5-S9, S11, S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

service a pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; servicing high/low priority second VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Regarding Claim 18, Pei discloses a network processor system (see FIG. 2-4, data communication system UNI 10) comprising:

at least one memory (see FIG. 2, memory 29) adapted to store one or more quality of service priority parameters (see col. 9, line 35-53; storing traffic priority tables) corresponding to one or more pipes (see FIG. 5, Virtual Path Connection (VPC)) and pipe flows (see FIG. 5,

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Virtual Circuit Connection (VCC) flows/connections with different priorities; see col. 9, line 20-30,45-50; see col. 10, line 65-67); and

scheduler logic (see FIG. 2, ATM segmentation and Reassembly CKT 23 with scheduling means (see FIG. 4)), coupled to the at least one memory (see FIG. 2, connects to memory 29); see col. 7, line 50-56, to:

select a first winning entry (see FIG. 5, identify/select a first content/entry to be serviced) from one of a plurality of main calendars (see FIG. 5, from lists in a schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first admission/content to be service identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determine that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

select a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars (see FIG. 5, from lists in a schedule table) during the time unit (see FIG. 5, during a time), the second winning entry indicating autonomous flow (see FIG. 5, identify/selected separate/independent/autonomous VCC associated with a first VPC) to be serviced during the time unit (see FIG. 5, a second content/entry identifies a separate/independent/autonomous VCC to be serviced during a time; see FIG. 1A-B, Method S5-

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S9,S11,S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to a low priority separate/independent/autonomous VCC of a first VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and

service the autonomous flow or pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; low priority separate/independent/autonomous VCC of a first VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
 obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pei in view of Li (US006560230B1).

Regarding Claim 13, Pei discloses the plurality of main calendars (see FIG. 5, lists in the schedule table) for storing at least one of the autonomous flow and a pipe that are scheduled to be serviced (see col. 5, line 30 to col. 6, line 25; see col. 9, line 20-30,45-50; see col. 10, line 65-67; see col. 7, line 50-57; see col. 9, line 25-30,43-50; see col. 11, line 5-25; schedule table stores one of separate/independent/autonomous VCC and VPC that is scheduled to be serviced):

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a pipe queue table for storing a winning pipe flow in a queue for a pipe to which the pipe flow corresponds (see FIG. 3, memory 29 comprising queues tables for storing VPC and VCC information for CBR, VBR, ABR and UBR traffic in their respective queues, and the scheduler lookups/access the queue associated with a identified VPC its VCC that needs to be serviced; see col. 7, line 50-57; see col. 9, line 25-30,43-50; see col. 11, line 15-22).

Pei does not explicitly disclose a plurality of secondary calendars for storing pipe flows that are scheduled to be serviced.

However, Li teaches a plurality of secondary calendars (see FIG. 5A, second group of class/priority queues 56) for storing pipe flows that are scheduled to be serviced (see FIG. 5A, storing traffic/flows that are scheduled to be serviced by scheduling engine 60; see col. 8, line 25 to col. 9, line 45); and

a pipe queue table (see FIG. 5, 5A, memory/queue table 64) for storing a winning pipe flow in a queue for a pipe to which the pipe flow corresponds (see FIG. 5,5A, memory/queue table 64 stores a selected traffic/flow in a queue 55 for a selected class/priority to which traffic/flow associated (e.g. best effort); see col. 8, line 25 to col. 9, line 45).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide disclose a plurality of secondary calendars for storing pipe flows that are scheduled to be serviced, as taught by Li in the system of Pei, so that it would provide fast scheduling and forwarding; see Li col. 3, line 45-65.

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(10) Response to Argument

Regarding claims 1-18, the Appellants argued that, "...the citation to Pei does not discuss selecting a second winning entry from the plurality of main calendars during the time unit, the second winning entry indicating a second pipe or an autonomous flow to be serviced during the time unit...the cited operations of Pei (S5-S9, S11, S13) do not explicitly address timing. Rather, the rejection appears to rely only on FIG. 5 of Pei for disclosing the timing feature...FIG. 5 of Pei actually discloses a table, each row of which represent a different cell transmit time...Li does not discuss...indicating a second pipe or an autonomous flow to be serviced during the time unit... selecting a second winning entry from the plurality of main calendars during the time unit, the second winning entry indicating a second pipe or an autonomous flow to be serviced during the time unit..." in page 12-16.

In response to Appellants argument, the examiner respectfully disagrees with the argument above.

Pei discloses selecting a first winning entry (see FIG. 5, identify/select a first content/entry) from one of a plurality of main calendars (see FIG. 5, from lists in the schedule table) during a time unit (see FIG. 5, during a time), the first winning entry indicating a first pipe (see FIG. 5, identify/selected a first VPC) to be serviced during the time unit (see FIG. 5, a first content/entry to be serviced identifies a first VPC to be serviced during a time; see FIG. 1A, Method S1-S3; see col. 5, line 14-30; see col. 10, line 64 to col. 11, line 16, 45-60; see col. 12, line 30-40);

determining that no pipe flow corresponding to the winning first pipe currently needs to be serviced during the time unit (see FIG. 1A, S3, S5, S11; when there is no cell ready to send

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for HP VCC (e.g. CBR/VBR) associated with this VPC during the transmit time; see col. 5, line 33-34, see col. 6, line 7-11; see col. 11, line 13-16);

selecting a second winning entry (see FIG. 5, identify/select a second entry/content to be serviced) from the plurality of main calendars during the time unit (see FIG. 5, from lists in the schedule table during a time), the second winning entry indicating a second pipe (see FIG. 5, identify/selected a second VPC) or autonomous flow (see FIG. 5, identify/selected separate/independent/autonomous VCC associated with a first VPC) to be serviced during the time unit (see FIG. 5, a second admission/entry identifies a second VPC or separate/independent/autonomous VCC to be serviced during a time; see FIG. 1A-B, Method S5-S9,S11,S13; when there is no cell ready to send in first VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 5, line 30 to col. 6, line 25; see col. 11, line 5-25); and servicing the autonomous flow or pipe flow corresponding to the second winning entry during the time unit (see FIG. 1B, S11, S13, S16; see FIG. 5; servicing high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC; see col. 6, line 6-55; see col. 11, line 5 to col. 12, line 65).

In view of the above bolded recitation, note that Pei identify/select a second entry/content to be serviced from lists in the schedule table <u>during a time</u>, where this time is allocated for a first high priority VCC, but there is no cell ready to send in first high priority VCC (e.g. CBR), the opportunity is passed to high/low priority second VPC, or low priority separate/independent/autonomous VCC of a first VPC.

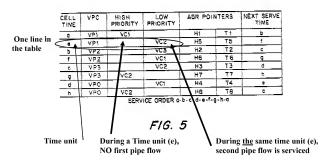
(1) The following is the detailed disclosure of the first citation in Pei.

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The scheduler supports high priority services, such as CBR service, for a number of virtual circuit connections (VCCs) within each virtual path connection (VPC). The scheduler therefore determines if there is a high priority VCC, associated with the identified VPC, for which there is a cell to send (step S3). If there is no cell ready to send for this CBR, the opportunity is passed to low priority VCC associated with this VPC. For a variable bit rate (VBR) service type circuit, the scheduler will identify the VCC and will check to see if there is a cell from the source device ready for transmission over that VCC. If there is a high priority cell to send, the scheduler registers the VCC identifier for that high priority circuit and sets an appropriate status bit (step S4), and processing flows to step S5. If there is no high priority circuit with a cell to send in the present transmit opportunity, then the schedule processing advances directly from step S3 to step S5. (Emphasis added)

In view of the above, it is clear that the system is passing the opportunity to transmit CBR service cell to lower priority VBR service within the same time. One skilled in the ordinary art would clearly see that serving VBR cell within the time primarily allocated for CBR service. Thus, it is clear that Pei clearly discloses "selecting a second winning entry from the plurality of main calendars during the time unit" and the second winning entry indicating a second pipe or an autonomous flow to be serviced during the time unit".

(2) Pei FIG. 5 is recited as follows:



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Pei's col. 11, line 12-24; col. 12, line 5-65 disclosed the following:

For <u>each cell transmit time</u>, the scheduler accesses one line in the table to perform a variety of scheduling functions. If the scheduler finds a CBR VCC in the high priority column and it has a cell ready to transmit, the scheduler initiates transmission of a cell over that VCC. If not, the scheduler looks to the low-priority column. If the line identifies a VCC for low priority service, the scheduler checks the cell queue in memory 29 holds a cell that is ready for transmission over that VCC. If so, then the scheduler initiates transmission of a cell for that VCC.

In the illustrated example, each VPC identifier appears in the line corresponding to every fourth cell transmit time, e.g. VP1 appears in lines a and e. When cell transmit time e occurs, the scheduler accesses the corresponding line in the table. Based on that line, the scheduler identifies VP1 as the VPC assigned this time slot. The scheduler checks the high priority field of the first line. In this example, there is no CBR service VCC listed.

The scheduler next checks the low priority field. In this example, that field identifies VC2. Here, VC2 is a different VCC associated with VP1. The low priority service preferably is a variable bit rate service. The scheduler checks to determine if this VC2 has a cell ready for transmission. If VC2 has a cell ready to transmit, the scheduler causes transmission of that cell in the time slot e. The header of the transmitted cell contains a VPI corresponding to VP1 and a VCI corresponding to VC2.

The listing of the VCCs in the high and low priority columns of the tables allocate transmit opportunity and bandwidth to those services. Constant bit rate service is provided by entries in the high priority fields of the table, and the number of entries in those fields determines the bandwidth within the VPC allocated to the particular VCC for its CBR service. In the above example, VCI for VPI appeared only in the high priority column. That VCC receives CBR service because the table guarantees that circuit an opportunity to transmit each time that cell transmit time a occurs.

Similarly VC2 for VP1 appeared in the low priority column in a line which included no higher priority entry. That entry guarantees VC2 an opportunity to transmit each time that cell transmit time e occurs. If the VCC circuit uses the opportunity every time, it receives its maximum allowable cell transmission rate. (Emphasis added)

In view of the FIG. 5 and disclosure above, the scheduler read the table in each line (row), during **cell time (e)** when there is no high priority flow (i.e. first pipe flow) to be transmit, then low priority flow (i.e. second pipe flow) is serviced. Thus, it is clear that Appellants broad claimed invention is clearly anticipated by Pei.

In response to Li reference, Pei has already disclosed the all limitation as set forth above.

Thus, Li is not required to disclose the argued limitation.

Regarding claim 13, the Appellants argued that, "...a prima facie case of obviousness of claim 13 has not been established as it has not been shown that the proposed combination of

Pei and Li disclose every feature of the claim..." in page 16.

In response to Appellants argument, the examiner respectfully disagrees with the

argument above since Pei has already disclosed the all limitation as set forth above, and the

combination of Pei and Li clearly disclosed all claimed invention as set forth in the rejection.

Thus, it is clear that examiner has clearly established a prima facie case of obviousness.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Ian N. Moore/

Primary Examiner, Art Unit 2416

Conferees:

/William Trost/

Supervisory Patent Examiner, Art Unit 2416

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/Huy D. Vu/

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